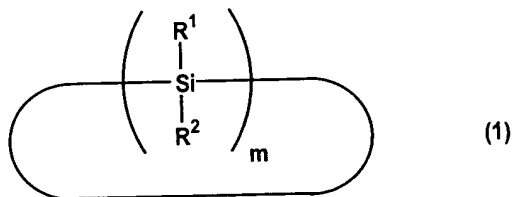


CLAIMS

1. An electrophotographic photosensitive element comprising at least a top surface layer containing a polysilane, wherein the polysilane comprises a cyclic polysilane represented by the following formula (1):



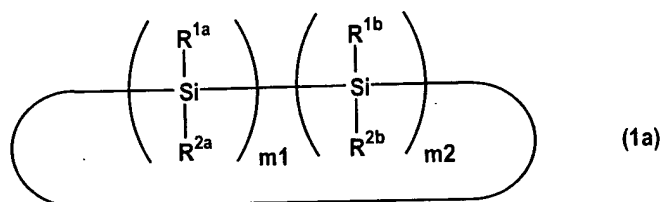
wherein R^1 and R^2 are the same or different from each other and each represents a hydrogen atom, a hydroxyl group, an alkyl group, an alkoxy group, an alkenyl group, a cycloalkyl group, a cycloalkyloxy group, a cycloalkenyl group, an aryl group, an aryloxy group, an aralkyl group, an aralkyloxy group, or a silyl group; the alkyl group, the alkoxy group, the alkenyl group, the cycloalkyl group, the cycloalkyloxy group, the cycloalkenyl group, the aryl group, the aryloxy group, the aralkyl group, the aralkyloxy group, or the silyl group may have a substituent; "m" denotes an integer of not less than 4; and R^1 and R^2 may vary depending on the coefficient "m", respectively.

2. An electrophotographic photosensitive element according to claim 1, wherein, in the formula (1), at least one of R^1 and R^2 represents an aryl group, and "m" is an integer of 4 to 10.

3. An electrophotographic photosensitive element

according to claim 1, wherein, in the formula (1), R^1 and R^2 each represents a phenyl group, and "m" is an integer of 4 to 8.

4. An electrophotographic photosensitive element
5 according to claim 1, wherein the cyclic polysilane is represented by the following formula (1a):



wherein R^{1a} and R^{2a} each represents an aryl group which may have a substituent; R^{1b} and R^{2b} are the same or different from each other and each represents an alkyl group
10 which may have a substituent, a cycloalkyl group which may have a substituent, or an aryl group which may have a substituent; provided that both R^{1b} and R^{2b} are not coincidentally an aryl group which may have a substituent; m_1 denotes an integer of not less than 1; m_2 denotes 0 or
15 an integer of not less than 1; and m_1+m_2 denotes an integer of not less than 4.

5. An electrophotographic photosensitive element
according to claim 4, wherein R^{1a} and R^{2a} each represents a C_{6-10} aryl group; a combination of R^{1b} and R^{2b} is (1) a
20 combination of a C_{1-4} alkyl group and a C_{1-4} alkyl group, (2) a combination of a C_{1-4} alkyl group and a C_{6-10} aryl group, (3) a combination of a C_{1-4} alkyl group and a C_{5-8} cycloalkyl group, or (4) a combination of a C_{6-10} aryl group and a

C₅₋₈cycloalkyl group.

6. An electrophotographic photosensitive element according to claim 4, wherein m₁ is an integer of 1 to 10, m₂ is an integer of 0 to 10, and m₁+m₂ is 4 to 12.

5 7. An electrophotographic photosensitive element according to claim 4, wherein m₁ is an integer of 1 to 8, m₂ is an integer of 0 to 8, and m₁+m₂ is 4 to 10.

8. An electrophotographic photosensitive element according to claim 1, wherein the polysilane is a polysilane mixture containing a cyclic polysilane.

10 9. An electrophotographic photosensitive element according to claim 1, which comprises at least both of an electroconductive support and a photosensitive layer, wherein the photosensitive layer comprises at least the following components: a charge-generating agent, a charge-transporting agent, and a binder resin.

15 10. An electrophotographic photosensitive element according to claim 9, wherein the photosensitive layer comprises a charge-generating layer, and a charge-transporting layer formed on the charge-generating layer.

20 11. An electrophotographic photosensitive element according to claim 9, wherein a surface protection layer containing the polysilane is formed on the photosensitive layer.

25 12. An electrophotographic photosensitive element according to claim 1, wherein the content of the

cyclic polysilane is 0.01 to 10% by weight relative to the whole components of the top surface layer.

13. An electrophotographic photosensitive element according to claim 1, wherein the content of the
5 cyclic polysilane is 0.01 to 5% by weight relative to the whole components of the top surface layer.

14. An electrophotographic photosensitive element according to claim 8, wherein the top surface layer comprises an outer surface layer of the photosensitive
10 layer or a surface protection layer of the photosensitive layer, and the proportion of a cyclic homo- or copolysilane having at least a diarylsilane unit is 0.01 to 3% by weight relative to whole components of the top surface layer.

15. A method for producing an electrophotographic photosensitive element recited in claim 1, which comprises
15 forming at least a photosensitive layer on an electroconductive support to obtain the electrophotographic photosensitive element, wherein a cyclic polysilane is incorporated into at least a top
20 surface of the electrophotographic photosensitive element.

16. An electrophotographic photosensitive element composition, which comprises a component for an outer surface layer of a photosensitive layer or a component
25 for a surface protection layer of a photosensitive layer, and a cyclic polysilane.

17. A composition according to claim 16, which

comprises a binder, a cyclic polysilane, and at least one member selected from the group consisting of a charge-generating agent and a charge-transporting agent.

18. A composition according to claim 17, wherein
5 the binder comprises a polycarbonate-series resin.

19. An electrophotographic cartridge, which is provided with an electrophotographic photosensitive element recited in claim 1.

20. An electrophotographic apparatus, which is
10 provided with an electrophotographic photosensitive element recited in claim 1.